

Abstract of the Disclosure

LOW EMISSIONS COMPRESSION IGNITED ENGINE TECHNOLOGY

A method and apparatus for operating a compression ignition engine having a cylinder wall, a piston, and a head defining a combustion chamber. The method and apparatus includes delivering fuel substantially uniformly into the combustion chamber, the fuel being dispersed throughout the combustion chamber and spaced from the cylinder wall, delivering an oxidant into the combustion chamber sufficient to support combustion at a first predetermined combustion duration, and delivering a diluent into the combustion chamber sufficient to change the first predetermined combustion duration to a second predetermined combustion duration different from the first predetermined combustion duration.